

# nbii Access

## NBII Coral Reefs Web Site Available

The National Biological Information Infrastructure (NBII) <www.nbii.gov> was created to allow vast quantities of data and information on the



Shallow Reef Corals

Credit: NOAA, The Coral Kingdom Collection, Linda Wade

nation's biological resources to be made available to a wide audience that includes resource managers, scientists, educators, and the general public.

As many have already discovered, a quick visit to <coralreefs.nbii.gov> shows that NBII coverage now extends to a broad look at coral reefs in the United States and even worldwide. The site's development springs primarily from the efforts of a talented team based at the U.S. Geological Survey (USGS) Florida Integrated Science Center (FISC) in Gainesville, FL.

Pam Fuller, whose specialty is nonindigenous aquatic species and

information systems, is project manager. Buck Albert, FISC

Webmaster, is building the Coral Reefs Web site and employing Plumtree portal software in the process. To help accomplish this formidable undertaking,

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## PBIN Develops Invasive Species Early Detection Reporting System

The NBII Pacific Basin Information Node (PBIN) has created a prototype invasive species early detection reporting system for Maui County, HI (see <pbin.nbii.gov/reportapest/maui>). This pilot system creates a standardized process for the early detection and rapid assessment of new and incipient invasive species, helping to catch pests in the earliest stages of invasion — when control is most practicable. This tool was created to bridge the gap between

early detection and rapid response by streamlining the existing ad hoc system for reporting, storing, processing, and communicating pest reports throughout Hawaii.

Harmful invasive species are considered “the single greatest threat to Hawaii’s economy and environment and to the health and lifestyle of Hawaii’s people,” according to the Hawaii state legislature. In response to this threat, Hawaii has been one

*(continued on page 11)*

## Coral Reefs (continued from page 1)

he has turned to the NBII portal team, which is based in Denver, CO. Input for much of the site's content has come from the center's public affairs staff, especially Elise Cortina, who has provided original text for a number of the pages. Other USGS scientists who played a key role in site coverage include Ken Sulak (FISC-Gainesville) and Ginger Garrison (FISC-St. Petersburg).

The site's aim is ambitious: to collect and assemble a preponderance of the existing Web-enabled information, resources, and content on coral reefs into a single source. Today, the NBII coral reefs

portal integrates a broad sampling of data sets, maps, publications, fact sheets, images, and other information from such organizations as the

National Oceanic and Atmospheric Administration, the U.S. Coral Reef Task Force, the Environmental Protection Agency, and the USGS. Just as important, the site is a work in progress, with offerings that are growing continually.

USGS input is particularly significant since it serves as the coordinator of the NBII, a broad, collaborative program to provide increased access to data and information on the nation's biological resources. The NBII links diverse, high-quality biological databases, information products, and analytical tools maintained by NBII partners and other contributors in government agencies, academic institutions, non-government organizations, and private industry. NBII partners and collaborators also work on new standards, tools, and technologies that make it easier to find, integrate, and apply biological resources information.

(continued on page 3)

**nbii** National Biological Information Infrastructure

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### Coral Reefs

**Coral Reefs**

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Coral Reefs Home

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Data & Products

Health

Other Topics

Regional Info

Research

**Coral Reefs**

The National Biological Information Infrastructure was created to allow vast quantities of biological information housed in various databases from many agencies and departments to be linked together for quick and easy access to information. The coral reef portal integrates data sets, maps, publications, fact sheets, images, and other information from organizations like the National Oceanic and Atmospheric Administration (NOAA), the U.S. Coral Reef Task Force (USCRTF), the Environmental Protection Agency (EPA) and the U.S. Geological Survey (USGS). The NBII coral reef project makes it easy to find and integrate biological information and current coral research. Use the links to your left to navigate the variety of information available on the World Wide Web about corals and coral reef communities.

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**Program News**

<a href="#">Reefs at Risk</a> Global Warming Puts Half of All Reefs at Risk	November 2, 2005
<a href="#">News and Announcements</a> U.S. Coral Reef Task Force News and Announcements	October 11, 2005
<a href="#">NOAA News</a> NOAA Releases National Study of U.S. Coral Reef Ecosystems	September 29, 2005

**Conferences of Interest**

[3rd International Symposium on Deep-Sea Corals - Science and Management](#)  
November 28 - December 2, 2005  
Rosenstiel School of Marine and Atmospheric Science  
Miami, Florida, USA

**Highlights**

[Ocean Explorer](#)  
NOAA Ocean Explorer is an educational Internet offering for all who wish to learn about, discover, and virtually explore the ocean realm. It provides public access to current information on a series of NOAA scientific and educational explorations and activities in the marine environment. The site provides a platform to follow explorations in near real-time, learn about exploration technologies, observe remote marine flora and fauna in the colorful multimedia gallery, read about NOAA's 200-year history of ocean exploration, and discover additional NOAA resources in a virtual library.

[U.S. Coral Reef Task Force](#)  
The United States Coral Reef Task Force (USCRTF) was established in 1998 by Presidential Executive Order #13089 to lead U.S. efforts to preserve and protect coral reef ecosystems. The USCRTF includes leaders of twelve federal agencies, seven U.S. states and territories, and three freely associated states. The USCRTF has been instrumental in building partnerships and strategies for on-the-ground action to conserve coral reefs.

Coral Reefs Home Page



Access, the newsletter of the National Biological Information Infrastructure, is published by the NBII National Program Office.

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Be sure to check out Access on the Web at [www.nbii.gov/about/pubs/news](http://www.nbii.gov/about/pubs/news).

Please direct your general questions about the NBII, including partnership opportunities, to:

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Visit the NBII Home Page at [www.nbii.gov](http://www.nbii.gov).

The Coral Reefs Web site is organized according to several subject headings:

- About the Project – looks at the growing list of coral reefs project partners;
- Coral Biology – lets you access biological and ecological information about corals and coral reef communities;
- Data and Products – provides access to coral reefs photo galleries as well as current research, data sets, and publications from the world's foremost coral reef authorities;
- Health – explores specific environmental characteristics needed to maintain the health and vitality of coral reefs;
- Other Topics – reminds us that coral is not only a critical foundation of reef ecosystems, but it has other uses, ranging from medicinal purposes to food supplies to protecting coastlines from storms and erosion;
- Regional Information – examines the ramifications of the reality that coral reefs are found in all the oceans of the world except the Arctic; and
- Research – looks at coral reefs research being conducted by government agencies, universities, non-governmental organizations, and foundations.

When you drill down into the site, you'll also find Program News, which features news alerts or releases addressing topics tied to coral reef biology and ecology.

"The NBII coral reefs portal makes it easy to find and integrate biological information and current coral research," says Fuller. "My colleagues and I invite everyone to visit. We think you'll like what you see." 

## Nielsen Award in Biodiversity Informatics Given to California Researcher

The 2006 Ebbe Nielsen Prize has been awarded to John Wieczorek of the University of California, Berkeley. This annual prize was established by the Global Biodiversity Information Facility (GBIF) Governing Board to honor the memory of Dr. Ebbe Schmidt Nielsen, who was an inspirational leader in the fields of biosystematics and biodiversity informatics. This prize is the only one in the world that is given in the area of biodiversity informatics.

The United States is a charter member of GBIF, which is dedicated to the standardization of species- and specimen-level data. The NBII is the U.S. GBIF node and is assisting in its implementation through the hosting of the U.S. Node Portal <gbif.nbii.gov> and supporting various workshops.

Wieczorek has played a seminal role in developing standards and protocols that allow biodiversity databases to be integrated with one another. For example, he played a large part in the development of Distributed Generic Information Retrieval (DiGIR), a protocol in wide use today,

The core focus for the NBII is providing ready and easy access to metadata, data sets, tools, and information products. From the distributed environment of the Web — and the NBII network — arise data and information from myriad sites, in various formats, with multiple owners.

The NBII must harvest these resources and provide a seamless interface to them for data and information discovery, regardless of source and format. DiGIR is among the activities supporting this effort.


Wieczorek's leadership has also been instrumental in developing community-based, distributed database networks about all terrestrial vertebrates in North America: MaNIS

for mammals, HerpNet for amphibians and reptiles, and ORNIS for birds.

The NBII is aiding MaNIS in assessing mammalian species diversity (the National Science Foundation provides funding for this and other informatics databases designed to enhance the

accessibility of species information throughout North American universities and institutions).

This goal of MaNIS is consistent with key NBII and GBIF initiatives designed to make large amounts of taxonomic and ecological data about organisms available to any individual with access to the Internet. The Web site is maintained by the University of California, Berkeley <elib.cs.berkeley.edu/manis/>.

We congratulate John Wieczorek for winning the prestigious Ebbe Nielsen Prize, and for his outstanding work, which is helping to advance the biodiversity informatics efforts of the NBII, GBIF, and similar efforts worldwide. 

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## Steps Toward Sharing Species Information

What are the challenges of sharing biological data? It seems simple: pool the data and let everyone ask their respective questions. Like most

things, however, it is not as simple as it first appears. Data and information are collected according to different standards and protocols, and at different levels of resolution and organization (such as species versus habitat versus ecosystem).

Various databases run on different operating systems (Oracle, SQL Server, Access) and are designed to meet diverse goals. Scientists, legislators, and resource managers at the local, state, and national levels, as well as students and the general public, have varying needs for scientific information ... so they may want to access the information in a specific way. How do we pool and present this complex, multi-dimensional array of data to both a scientist and to a fifth-grader in a way that meets each of their needs?

The NBII Species Knowledge Management Working Group (SKMWG; pronounced *skimwig*) is addressing one part of this larger problem. SKMWG is working to improve the sharing and accessing of *species* information across all the NBII nodes. Species information includes data sets, literature, images, GIS maps, and more. Even working with species information alone, it is still a daunting task

to pool data of different standards, methodologies, and formats.

To begin to solve this problem, SKMWG is working with the

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NBII information technology (IT) staff to build a general species information search tool to meet the needs of multiple users. To accomplish this, we first needed to know where the data are, what they consist of, and then to facilitate easy retrieval. User requirements have

been defined through multiple meetings of SKMWG and IT, as well as a workshop involving resource managers from other federal agencies. Some of the capabilities devised by IT in the first prototype have been incorporated into BioBot, the NBII general search agent.


Additional species search capabilities may also be incorporated into BioBot, but the current plan is to have a Species Search box or checkbox that returns a diversity of results related to a particular species in a way that serves multiple users of species information.

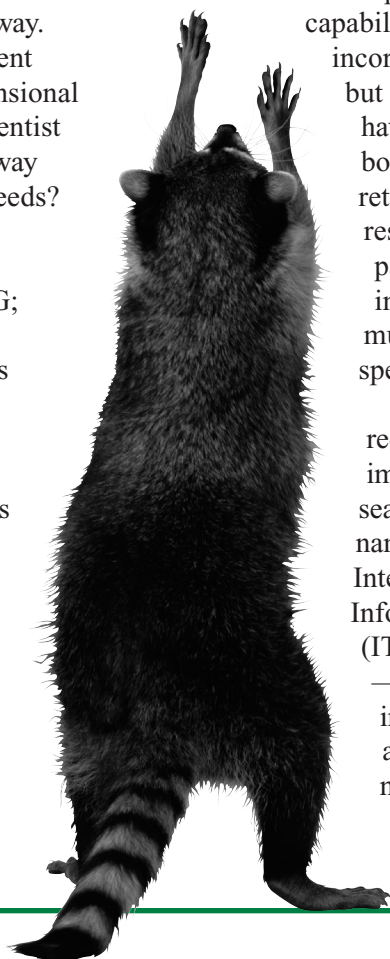
One of the essential requirements to improve species searching is the use of name expansion. The Integrated Taxonomic Information System (ITIS) <[www.itis.gov](http://www.itis.gov)> — an authoritative index of common and scientific names for species,

synonyms, and the relationships between names — will be linked to the species search tool. Our goal is that when a visitor enters the NBII Web site <[www.nbii.gov](http://www.nbii.gov)> and types “raccoon” in the species search box, the search will first retrieve from ITIS all the possible “other” names (e.g., “common raccoon,” “Procyon lotor,” “raccoon dog,” “Nyctereutes procyonoides,” and so forth) and then search the NBII resource catalog and specific partnered sites for information related to any of those names. The results may include:

- Disease information from the NBII Wildlife Disease Information Node in Madison WI,
- Population data from the NBII Bird Conservation Node in Patuxent, MD,
- Images from the NBII Digital Image Library,
- Taxonomic descriptions from ITIS,
- Published and grey literature,
- Gap Analysis Program and other distribution data, and
- Management information.

The interface will cluster specific types of resources, and would then enable the user to sort the information further, go directly to a particular type of data, or further refine the search by retrieving information on a particular subspecies of raccoon.

New species search capabilities will bring up far more resources than before through name expansion and linkages to specific data repositories. High quality, relevant resources would be more readily accessible. NBII IT staff is working towards this goal. In the meantime, SKMWG will continue to visit this and other topics concerning species information. 



# NBII Digital Image Library Reaches New Milestones

In 2004, the NBII unveiled its online Digital Image Library with the goal of providing high-quality biological images to support the research and understanding of our natural world. Since then, the library has grown rapidly, new partners have been added, and other new developments are under way!

The Digital Image Library <images.nbii.gov> goes beyond many other photographic libraries by providing images that are linked to detailed information, such as geographic location, scientific and common names, and habitat descriptions. Thus, the images can serve a variety of uses, from identifying species in the field or in a classroom, to illustrating a subject for a presentation, to allowing a comparison of habitat changes over time. The library's users include scientists, conservationists, decision makers, educators, students, and the general public worldwide. And to support the library's mission, most images are public domain or their copyright allows for nonprofit or educational use. Contributors to the library also benefit by having an accessible, secure repository for their images, as well as a wide audience for them.

The library is growing almost exponentially. In mid-2005 we cataloged our one-thousandth image. In the next several months we more than doubled that, reaching 2,500 images in April 2006. We now have collaborations in place for 10,000 images in the next year, along with offers for tens of thousands more the following year.

These images come from the NBII, its partners, and its new, contributing partners. Check out the latest images from these contributors:

- *Finding Species*, which has contributed a beautiful collection of images of Western Amazonian

trees and geckos of the United States, and

- *Guyra Paraguay*, which has pulled together a diverse range of photographs of Paraguayan plants, animals, and habitats.

We are excited about the new collections of images coming on board soon: the wildlife and habitats of the mid-Atlantic region, South Africa, Ecuador, and Nicaragua. We are working with the NBII Pacific Basin Information Node to share images of plants and corals they have collected, along with linking to image galleries outside the NBII. Finally, thanks to those of you within the NBII who have contributed images on a more individual basis. Each image helps build an even more diverse, and thus useful, library.

Other developments include:

- The recently published NBII Digital Image Library Guidelines can now be found in the NBII Portal, and soon through the Web site itself (or contact us below).
- The Digital Image Library features Special Collections, a category of images that highlights contributions made by partners, as well as special subject collections ("NBII in action" and "Invasive Species of ..." are potentials).
- Images can now be uploaded directly through the NBII Cataloging Tool by those with permission (see the Guidelines for specific steps).
- We are investigating the capture

of EXIF information (data embedded by a digital camera into an image, such as the date), and automatically populating certain metadata fields.

- New geospatial tools through the NBII will soon allow for improved geospatial searching of images.



Photo credit: Thomas Hermann/NBII

Common Name: lion

Scientific Name: *Panthera leo*

Taken at Kruger National Park, South Africa

The library will soon switch to a public portal architecture, but the layout will remain basically the same. As the NBII Digital Image Library continues to expand in images, we invite you to participate as a customer, a partner, or both. Tell us what you would like to see, and help us add our ten thousand records in record time!

For more information about the Digital Image Library, to contribute images, or to explore image project opportunities, contact the Digital Image Library coordinators: Gene Morris, at <images@nbii.gov> or 703/648-4351, and Annette Olson, Ph.D., at <alolson@usgs.gov> or 703/648-4080.

# Invasive Species Toolbox

*Do you have news about an invasive species project you would like to share? This column is a collection of useful items and highlights related to invasive species information management issues. Please send suggestions for future Toolbox columns to Annie Simpson at <asimpson@usgs.gov> or Liz Sellers at <esellers@usgs.gov> and cc: the Access editor, Ron Sepic, at <ron\_sepic@usgs.gov>.*

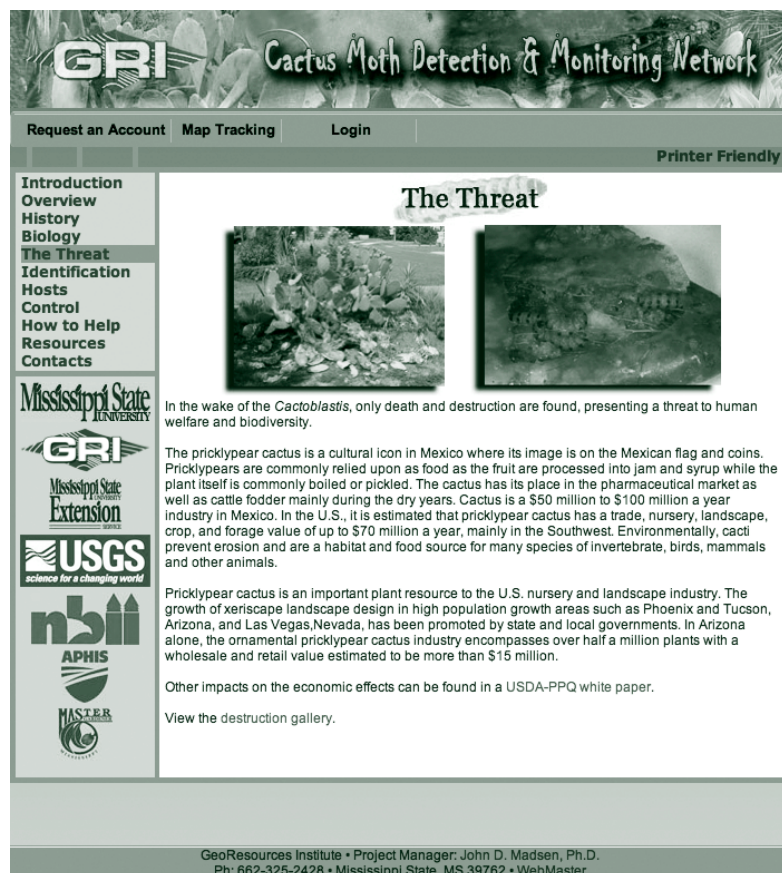
## Cactus Moth, Prickly Pear Data Layers Available through NBII Geospatial Portal

The Mississippi State University GeoResources Institute (GRI) now has their ArcIMS Map Web Mapping Service enabled and registered with NBII cataloging services. Two data layers are available for the prickly pear locations and the confirmed

moth locations. Visit <nbii-catalog.ornl.gov> and type “opuntia” in the search box.

The GRI has also provided the Cactus Moth Detection and Monitoring Network (CMDMN) Web site with content related to prickly pear cactus and the cactus moth. The site provides information on everything a volunteer, private land owner, or concerned citizen would want to know about the cactus moth and its host. The site is available at <www.gri.msstate.edu/cactus\_moth>.

The CMDMN has identified over 1,200 prickly pear locations, and that number continues to grow. Reported locations span from Texas to Florida, including Arkansas, Missouri, and



Tennessee, and then from Florida up to North Carolina. The host plant locations include 17 different *Opuntia* species, and locations of cactus moth infestations are currently provided for Alabama, Florida, South Carolina, and North Carolina.

## Nonindigenous Aquatic Species Database Offers Summary Graph Feature

The USGS Nonindigenous Aquatic Species (NAS) program has recently made summary graphs available on its Web site at <nas.er.usgs.gov>.

The graphs are intended to help managers better understand the pathways and sources of aquatic animals that are introduced (see graph on page 7).

Information can be analyzed for the country as a whole, or by state or taxonomic group. The graphs are derived from the NAS database and are updated nightly to incorporate new data and other changes.

To access a graph, go to <nas.er.usgs.gov/graphs>, or select “Graphs & Charts” from the “Databases & Queries” tab at the top of the NAS Web site at <nas.er.usgs.gov>.

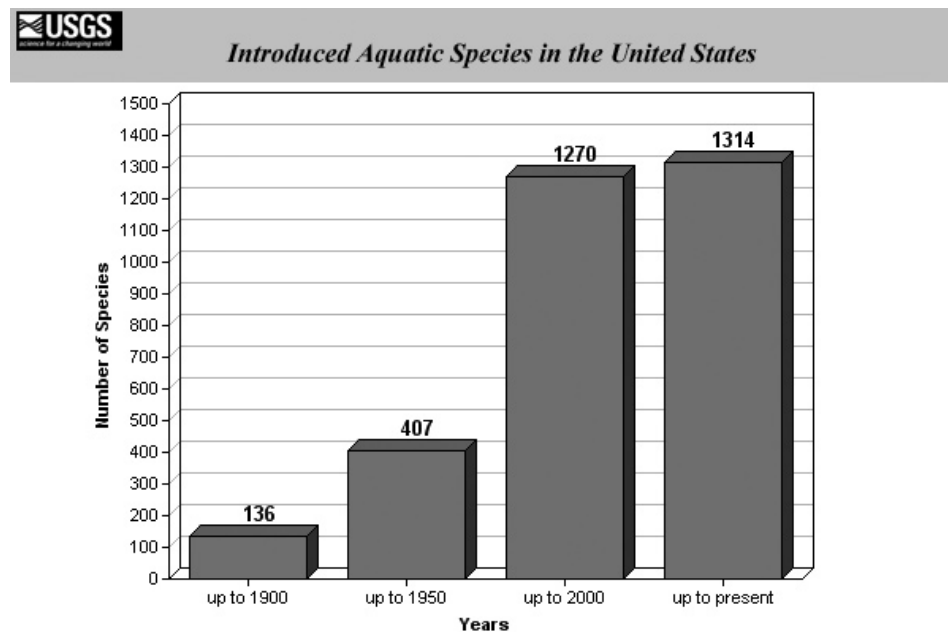
## SAIN Invasive Weeds Data Now Downloadable from the Web

The NBII Southern Appalachian Information Node (SAIN) has placed its invasive plant locational data contributions for oriental bittersweet, Japanese honeysuckle, and purple loosestrife in the North American Weed Management Association (NAWMA) standardized format and made them available for download in GIS format from the NBII-SAIN Web site at <sain.nbii.org/downloads/regional\_map/gisdata/index.shtml#inv\_plants>.

These integrated data sets have also been submitted to the NBII-supported national species database housed at the National Institute of Invasive Species Science (NIISS) in Fort Collins, CO. To access the NIISS Web site, go to <www.niiss.org>. You can view the GIS data on their national Web map.

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## NAS Graphs and Charts: All Introduced Aquatic Animals in the U.S.



The graph shows the cumulative number of aquatic species that have been introduced up until the last year listed.

(graph created 5/15/2006 by the U.S. Geological Survey)

## Upcoming Events of NBII Interest

Coastal Society Twentieth Biennial Conference: Charting a New Course, Shaping Solutions for the Coast, St. Petersburg, FL.	May 14–17
Fourteenth Annual Conference on Aquatic Invasive Species, Key Biscayne, FL.	May 14–19
Ecosystem-Based Management: Beyond Boundaries. Sixth International Science and Management of Protected Areas Association, Acadia University, Wolfville, Nova Scotia, Canada.	May 21–26
Southeast Exotic Pest Plant Council Annual Conference, Raleigh, NC.	May 23–25
Natural Science Collections Alliance 2006 Annual Meeting: The Road to Productive Partnerships, Albuquerque, NM	May 23–27
Biodiversity: The Interplay of Science, Valuation, and Policy. The American Institute of Biological Sciences Annual Meeting, Washington, D.C.	May 24–25
Weeds Across Borders 2006, Hermosilla, Sonora, Mexico.	May 25–28
Native Plants in the Landscape Conference, Millersville, PA.	June 1–3
American Society of Limnology and Oceanography Summer Meeting— Global Challenges Facing Oceanography and Limnology, Victoria, B.C.	June 4–9

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## Waterfowl Data Summaries and Wetlands Information for Latin America and the Caribbean Now Available Online

In 2000, Ducks Unlimited, and partners, initiated waterfowl surveys in Latin America and the Caribbean to facilitate conservation of migratory waterfowl throughout their range. Data resulting from these surveys are being used to develop habitat projects on the ground. To increase data sharing and coordination of conservation efforts region-wide, Ducks Unlimited, in partnership with the U.S. Fish and Wildlife Service and the NBII Bird Conservation Node, developed a relational database and Web-based data entry forms for Latin America and Caribbean Waterfowl Surveys as well as an interactive mapping application for waterfowl and wetlands data available through the NBII at [birdcon.nbii.gov/monitoring\\_links.html](http://birdcon.nbii.gov/monitoring_links.html) or at [gis.ducks.org/website/lachtml/Viewer.htm](http://gis.ducks.org/website/lachtml/Viewer.htm). The Ducks Unlimited interactive map for Latin America and the Caribbean is currently providing summaries of waterfowl surveys data and descriptions of wetlands in the Neotropics. Plans are under way to develop a relational database and Web-based data entry forms for wetlands data and to link this information with the existing Latin America and Caribbean Waterfowl Surveys Database.

# The NBII Metadata Program: Recent Highlights

The NBII metadata program is currently working on a variety of projects to enhance users' experience with metadata. A few highlights of what we've been doing are described below.

## Quick Clearinghouse Stats

The NBII Clearinghouse <metadata.nbii.gov> is an online tool through which users can search for standard scientific metadata records on a variety of biological and geospatial data and information. Here are some of the latest statistics for the Clearinghouse:

- 22,407 records
- 29 contributing partners
- 305 average searches per month

## Recent Workshop News

We have been circling the United States providing metadata training to many groups this year: as of May 2006, 109 people had been trained, representing 42 organizations.

Much of the NBII workshop success is due to one of our dynamic trainers, Terry Giles, based at the U.S. Geological Survey in Fort Collins, CO. A recent e-mail from one participant read, "I just wanted to tell you how great the metadata workshop was.

I learned SO much and was able to come back to work and put it all to good use... This workshop was different from any I have attended. I actually learned useful things!"

NBII workshops are made possible through funding awards from the Federal Geographic Data Committee (FGDC) Cooperative Agreements Program (CAP), which recently awarded the NBII another \$20,000 to continue training workshops through 2007.

## Upcoming Workshops

Where have you been? Come join us! Contact Viv Hutchison, NBII Metadata Program Coordinator, at <vhutchison@usgs.gov> or 206/526-6282, ext. 329.

Train the Trainer	
June 20-22	Denver, CO
Introduction to Metadata	
July 25-26	Fort Collins, CO
September 26-27	Seattle, WA

## Recent ISO Activities

The world of geospatial metadata standards is undergoing some changes to better align with the international community. Currently two standards

pertinent to upcoming geospatial documentation processes have been released by the International Standardization Organization (ISO): ISO 19115 and ISO 19139.

The first standard, ISO 19115, describes the general content of metadata and the relationships between metadata elements, but it does not specify the structure of the record. Therefore, ISO 19139 was created to provide guidance for how metadata records should be built and formatted through an XML schema.

The FGDC is in the process of developing the North American Profile for these ISO standards, a process that will ensure fields important to documenting North American geospatial activities are included in the standard. Additionally, the FGDC is creating a workbook for the North American Profile to the ISO 19139 standard that will allow users of the standard to better understand the requirements and will provide examples of creating metadata according to ISO standards.

The NBII has taken the lead in developing a biological profile to accompany the ISO 19115 North American Profile. The first working group meeting in this effort will be in Denver, CO, on May 23 and 24. Similar to the current Biological Data Profile, which is used in conjunction with the FGDC Content Standard for Digital Geospatial Metadata, the new profile will include fields that allow description of analytical tools, models, and taxonomy.

## Software News for Metadata Creators

*Metavist* is a computer program for creating metadata that is compliant with the FGDC 1998 metadata standard and/or the NBII 1999 Biological Data Profile for the FGDC

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Tom Burley (NBII Southern Appalachian Information Node), Terry Giles (USGS, Fort Collins, CO), Lynn Kutner (NatureServe), and Viv Hutchison (NBII) making metadata training memorable in Tennessee.

## Metadata (continued from page 8)

standard. A new version of the free metadata software program Metavist has been released by the USDA Forest Service. Version 1.2 fixes four minor bugs and adds the capability to export HTML. In version 1.0, the XML-formatted metadata document could be viewed in a Web browser using a style sheet. Unfortunately, paragraph structure was lost in this display, often making the metadata harder to read. The HTML exported by version 1.2 retains the paragraph structure in the XML.

More information, as well as the new version of the software, can be obtained at <[www.ncrs.fs.fed.us/pubs/databases/archive\\_info/#tools](http://www.ncrs.fs.fed.us/pubs/databases/archive_info/#tools)>. 🌿

## NBII Strategic Plan Available Online

*Strategic Plan for the USGS National Biological Information Infrastructure (NBII)* is available at <[www.nbii.gov/about/pubs/index.html](http://www.nbii.gov/about/pubs/index.html)>.

The publication discusses agency goals for the NBII for 2003 to 2008, as well as the strategies that will be used to achieve those goals.

The piece reflects the high priority the USGS places on meeting customer needs for reliable and impartial information.

Development of this Strategic Plan included user, partner, and stakeholder involvement through focus groups, conferences, feedback ms, and stakeholder meetings.



## NBII in the News

Published materials about the NBII often appear in the popular and trade press, in government publications, and in professional journals. This issue of *Access* marks the beginning of a new regular column in which we'll note recent instances of the NBII appearing in the news media and other venues.

We have provided URLs to these pieces and links, where available, in both the PDF and HTML files of our online edition of *Access* (see <[www.nbii.gov/about/pubs/news/current.html](http://www.nbii.gov/about/pubs/news/current.html)>). We invite you to sample these articles at your convenience:

- The NBII Wildlife Disease Information Node (WDIN) was featured in the "Netwatch" column in the March 24, 2006, issue of *Science* magazine, the international weekly science journal published by the American Association for the Advancement of Science. "Netwatch" provides glimpses of interesting science Web sites. The WDIN write-up

*Published materials about the NBII often appear in the popular and trade press, in government publications, and in professional journals.*

featured the node's rich data and information resources on chronic wasting disease and other wildlife diseases, including avian cholera <[www.sciencemag.org/cgi/reprint/311/5768/1685d.pdf](http://www.sciencemag.org/cgi/reprint/311/5768/1685d.pdf)>.

- *Earth Negotiations Bulletin (ENB) on the Side*, a Special Report on Selected Side Events at CBD COP-8, was published March 23, 2006, by the International Institute for Sustainable Development (IISD) in cooperation with the CBD Secretariat <[www.iisd.ca/biodiv/cop8/enbots/pdf/enbots0903e.pdf](http://www.iisd.ca/biodiv/cop8/enbots/pdf/enbots0903e.pdf)>. The issue featured an article on "New Developments in the International Pollinator Initiative" and noted Gladys Cotter and Toral Patel-Weynand of the USGS Biological Informatics Office (see "International Connections" column on page 10).

- The Spring 2006 *Newsletter of the International Biogeography Society* <[biogeography.org/newsletter.htm](http://biogeography.org/newsletter.htm)> (vol. 4, no. 1) features an article on NBII partner Discover Life, a vast online encyclopedia of biological and geographical information for over 250,000 species. 🌿



### Infected mule deer with CWD

Photo credit: Christina Sigurdson, Colorado State University. Photo taken at Colorado Division of Wildlife Research Facility.

## International Connections

### Uruguay Joins IABIN's Invasive Species Thematic Network

Uruguay has joined the Inter-American Biodiversity Information Network (IABIN) Invasives Information Network (I3N), raising the number of participating countries to 14. I3N is the Invasive Species Thematic Network of IABIN and is managed by the NBII. A resolution by the School of Sciences at the University of the Republic of Uruguay designated Dr. Pablo Muniz and Mr. Ernesto Brugnoli Olivera as the I3N Co-Leads for the nation.

At the recent I3N training workshop in Uruguay, which was supported by the U.S. Geological Survey (USGS) Biological Informatics Office's NBII, both Co-Leads had the opportunity to interact with experts in the field, who agreed to channel all existing invasive alien species information to a single

I3N database. This effort is emphatically supported by Dr. Ana Aber, IABIN Focal Point for Uruguay.

In a collaborative partnership, the Uruguayan National Environmental Agency will host the national I3N database, and the

University will be responsible for information gathering, storage, and management. Enthusiastic about this new initiative, Dr. Muniz says that their designation as Co-Leads will allow them to advance the invasive species issue in Uruguay, and that they will be able to "strengthen links between the academic and policy realms, channel the support from I3N into the country, and expand regional collaboration among researchers and managers."

### Global Integrated Trends Analysis Network Holds Organizational Event

The Global Integrated Trends

Analysis Network (GITAN) hosted a USGS-sponsored meeting at the Convention on Biological Diversity (CBD) Conference of the Parties (COP) on March 22. GITAN is a multidisciplinary network of collaborators committed to delivering comprehensive and integrated data on landscape change and provides an institutional and spatial framework for integrating and delivering data on the status and trends of land cover, ecosystems, and conservation threats.

A panel with representatives from the Paraguayan Environment

Ministry, Guyra Paraguay, IABIN, USGS, and the NBII discussed a range of planned objectives and activities GITAN is leading. These included GITAN Web-based tools, such as the Global Data Toolkit (accessible at <[rockyitr.cr.usgs.gov/gitan](http://rockyitr.cr.usgs.gov/gitan)>), and Rapid Land

Cover Mapping tool. This tool enables users to view trends analyses, satellite images, and derived data layers, and then use this visualized information to plan and coordinate conservation activities.

Participants also discussed GITAN's ongoing global activities and pilot projects in Senegal and Paraguay, including an ecosystems gap analysis for Paraguay. Several participants asked about joining GITAN, and expressed interest in GITAN's plans to provide easy accessibility to large data sets and allow communities of practice to manage those data sets.

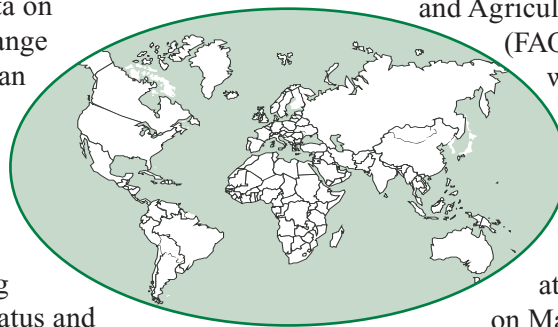
### NBII Participates in Pollinators Event

Gladys Cotter, head of the USGS Biological Informatics Office, and Toral Patel-Weynand, NBII International Program head, worked with partners in the governments of Brazil and South Africa and the Food and Agriculture Organization

(FAO) at a recent workshop on pollinators. The workshop was hosted by the Department of State and held at the CBD COP on March 22 to unveil

a new book titled *Pollinators and Pollination: A Resource Book for Policy and Practice*. Dr. Patel-Weynand described the progress of the North American Pollinator Initiative and the North American Pollinator Protection Campaign (NAPPC) and said that NAPPC's activities include a National Academy Study, which will be published in 2006, along with recommendations for research, monitoring, conservation and restoration, and the identification of gaps.

Following the book unveiling and talk, Bráulio de Souza Dias, from the Brazilian Ministry of Environment, emphasized the importance of resource mobilization and public interest in implementing the Brazilian Pollinators Initiative, which now has more than 50 institutions involved and more than \$7 million committed. Ivan Valdespino of IABIN and Jim Edwards of the Global Biodiversity Information Facility spoke of the contributions that international initiatives in information sharing and knowledge development can make to conserving and managing pollinators.



*Uruguay has joined the Inter-American Biodiversity Information Network (IABIN) Invasives Information Network (I3N)...*

## PBIN (continued from page 1)

of the leaders in invasive species mitigation through inventive methods of prevention, early detection, rapid response, and ongoing management by a variety of federal, state, county, and private organizations. Creating cohesion between the actions of these assorted groups is necessary to ensure the efficacy of invasive species management for the state.

The PBIN invasive species early detection reporting system is one step in this direction. The system provides a one-stop shop for reporting invasive pests, offering multiple reporting methods, including the latest local and regional reporting phone numbers, walk-in locations, and an online report form. Information entered using the online report form will be reviewed by qualified local invasive species identification specialists and then relayed to federal, state, and private rapid response entities via an interface that will allow tracking and response to these reports in an interactive, real-time fashion. The system is designed to be scalable, serving the needs of individual islands or the entire state.

The public is also being engaged in the process. Twenty-seven



### Maui County Report a Pest

Help keep Maui Nui free from pests, become Maui County's eyes and ears!

Report your Maui County target pest in one of these easy ways.



[Online pest report form](#)



[Call in your pest report](#)



[Walk-in pest report locations](#)

#### [Learn about the Maui County Target Species](#)

Information about Maui's newest backyard invaders. Visit the most wanted lists for [Maui](#), [Molokai](#), and [Lanai](#).

#### [Join the Early Detection "Eyes and Ears" Team!](#)

Get involved in the effort to keep Maui free of new pests.

Report your priority pest [online](#), [by phone](#), or [in person](#).

[About the Maui County Early Detection Reporting Tool project](#)



**Featured Maui County Pest Alert:**  
[Downy Rose Myrtle](#)

[\[ Report a Pest Home \]](#) [\[ PBIN Home \]](#)

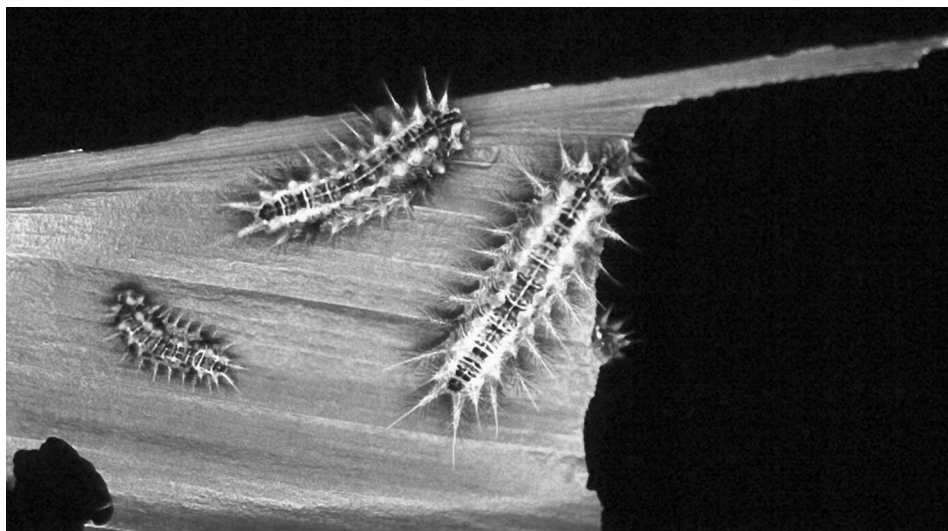
Last Updated: Wednesday May 03 2006. If you have any questions about the Maui County Early Detection Reporting Tool contact [reportapest-maui@hawaii.edu](mailto:reportapest-maui@hawaii.edu).

Visit the Maui County Report a Pest Web site [pb.in.nbio.gov/reportapest/maui/](http://pb.in.nbio.gov/reportapest/maui/).

“priority pests” have been selected by a committee of invasive species management specialists to be targets for active early detection. These priority pests are the focus of educational workshops held

in collaboration with the Maui and Molokai Invasive Species Committees. Maui County residents — such as hunters, hikers, ranchers, nursery workers, landscapers, gardeners, and golf course employees — will be trained to act as priority pest “eyes and ears,” expanding the detection network to areas where current control efforts are limited. Within a day of the first workshop, two target species reports were received, resulting in the control of identified invasive threats that were not known to be present on the island of Maui.

For more information about this project, contact PBIN's Sky Harrison <[sharrison@usgs.gov](mailto:sharrison@usgs.gov)>, <[reportapest-maui@hawaii.edu](mailto:reportapest-maui@hawaii.edu)>, or visit the Maui County Report a Pest Web site <[pb.in.nbio.gov/reportapest/maui/](http://pb.in.nbio.gov/reportapest/maui/)>.



Picture courtesy of the Hawaii Department of Agriculture.

The stinging nettle caterpillar (*Darna pallivitta*) is one of the target species for the Maui County early detection project. This small stinging pest is found on islands neighboring Maui, and has been transported interisland via infected landscaping plants. Community members are being trained to look for this imminent threat through workshops, field guides, and online Web pages.

*Upcoming Events of NBII Interest (continued from page 7)*

International Council for Scientific and Technical Information (ICSTI) 2006 Annual Meeting and Public Conference, Bethesda, MD.	June 7–11	2006 Talbot Symposium on Computers and Veterinary Informatics, Honolulu, HI.	July 15–19
Biodetection Technologies Conference, Washington, D.C.	June 15–16	Advances in Threat Assessment and Their Application to Forest and Rangeland Management, Boulder, CO.	July 18–20
Annual Meeting of the Society for Conservation Biology—Conservation without Borders, San Jose, CA.	June 24–28	Soil and Water Conservation Society 2006 International Conference, Keystone, CO.	July 22–26
2006 Gordon Research Conference on Environmental Sciences—“What Impact Is Our Work Having on the State of the Environment?” Plymouth, NH.	June 25–30	Annual Southwest Conference on Diseases in Nature Transmissible to Man, San Antonio, TX.	August 1–14
2006 International Conference on Bioinformatics and Computational Biology, Las Vegas, NV.	June 26–29	Joint Annual Meeting of the American Society of Plant Biologists and the Canadian Society of Plant Physiologists, Boston, MA.	August 5–9
The Second Bird Flu Summit, Washington, D.C.	June 28–29	Annual Meeting of the Wildlife Disease Association and American Association of Wildlife Veterinarians, Storrs, CT.	August 6–10
2006 Joint Meeting of the Ichthyologists and Herpetologists, New Orleans, LA.	July 12–17	Annual Meeting of the Ecological Society of America, Memphis, TN.	August 6–11
		GIS—Communicating Our World: ESRI International User Conference, San Diego, CA.	August 7–11



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